

08CN8851-6

REMARKS

Claims 1-53 are pending in the present Application. Claim 45 has been amended. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 102(b)

Claims 1, 2, 4, 7, 8, 9, 10, 12, 15-16, 30, 32, 34, 35, 37, 39, 42, 43, 44, and 52 stand rejected under 35 U.S.C. § 102(b), as allegedly anticipated by or, in the alternative, under 35 U.S.C. 103 (a) as obvious over U.S. Patent No. 4,927,859 to Weber et al. Applicants respectfully traverse this rejection.

Weber discloses expandable polymers in particle form. The expandable polymers comprise a styrene polymer, a polyphenylene ether and a blowing agent mixture (Abstract). The composition may optionally comprise a flameproofing agent and suitable flameproofing agents include triphenylphosphine oxide (Col. 3, lines 42-49). The expandable polymers are prepared by impregnating particles in an aqueous suspension with the blowing agent mixture at elevated temperatures and under superatmospheric pressure (Col. 3, lines 59-63).

The Examiner has asserted that Weber discloses expanded compositions produced by "substantially identical methods". Applicants respectfully disagree as the instant claims require that the blowing agent is introduced to a melt mixture whereas Weber teaches solid particles that are imbibed with the blowing agent. Due to the differences in the methods of making the expandable and expanded compositions Applicants respectfully assert that Weber does not anticipate the pending claims as it does not necessarily flow that the composition expanded material of Weber would have the same sound properties. By imbibing a blowing agent mixture which includes a plasticizing blowing agent it is difficult to predict the effect on sound properties as migration of the plasticizing blowing agent, migration of the flameproofing agent or migration of both may occur, particularly during expansion, and this could potentially effect the sound properties of the expanded composition. Accordingly, Applicants respectfully request withdrawal of the rejection.

08CN8851-6

Claims 1, 2, 4, 6, 8-10, 12, 14, 45, 47, and 50-51 stand rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Allen.

'390 is directed to a structural foam sheet that is foamed at the die (see figure 1) and does not teach or disclose an expandable composition in the form of a pellet as is instantly claimed. The Examiner has stated that the claimed material does not appear to be materially or patentably different from the product disclosed in Allen. (Page 4 of the instant office action). Applicants respectfully disagree.

A structural foam sheet which is foamed at the die has a "skin" produced by foaming at the die and a non-particulate foam structure. In contrast, the expanded material produced by expanding an expandable particulate composition typically does not have a "skin" and the foam structure demonstrates a structure that is characteristic of the original particles. To better demonstrate this point, Figure 1 (below) is a photograph of three samples of expanded materials. The large black rectangle was produced as describing in the pending application. The smaller black sample was cut (sawed) from the larger sample. The white material was produced as described in Allen. The "skin" on the white sample and the lack of "skin" on the black samples can clearly be seen.

08CN8851-6

Figure 1.

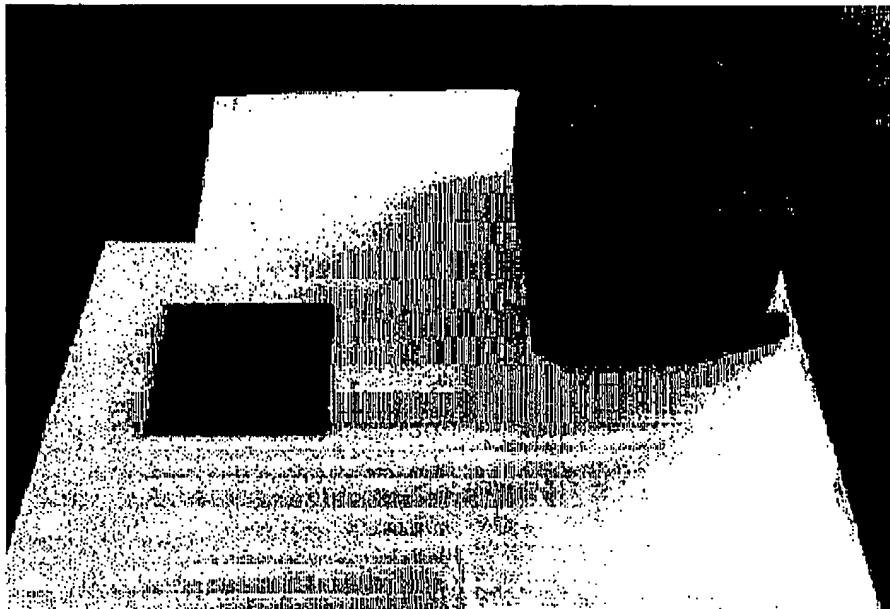


Figure 2 is an LM photograph of an expanded material produced as described in the pending claims. Figure 3 is an LM photograph of an expanded material produced as described in Allen.

Figure 2.

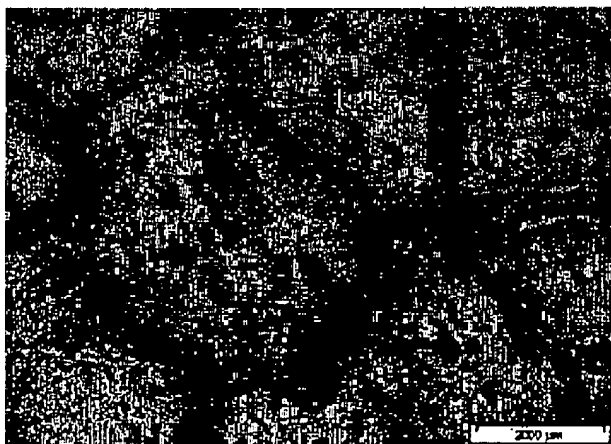
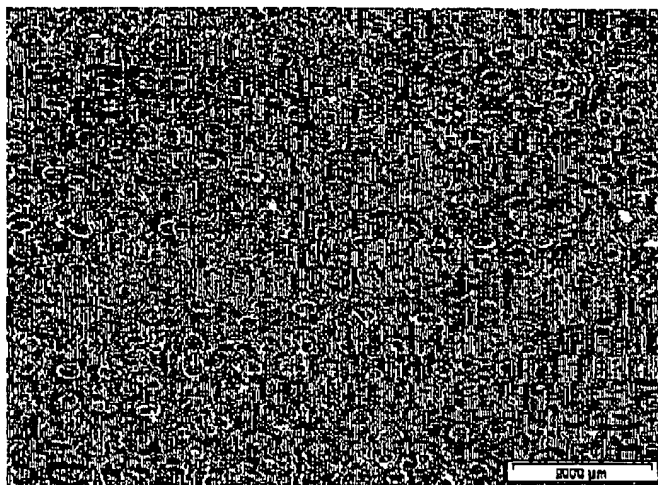


Figure 3.

08CN8851-6



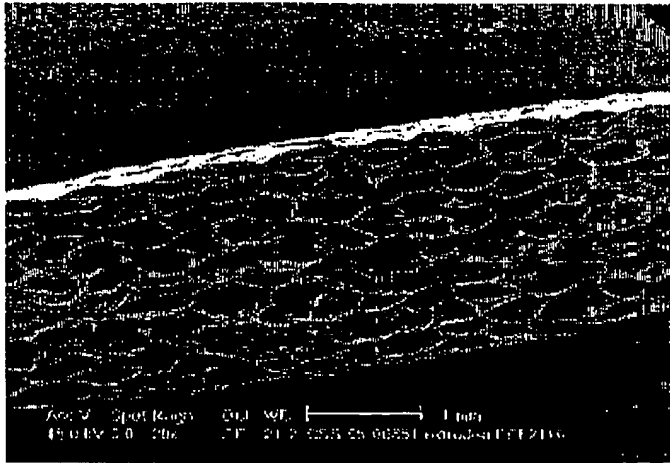
The SEM images are perhaps more dramatic. Figure 4 shows material produced as instantly claimed and Figure 5 shows material produced as described in Allen.

Figure 4.



08CN8851-6

Figure 5.



Applicants have provided these images to assist the Examiner in appreciating the differences between the structural foam of Allen and the expanded material of the pending claims. As the Figures show, the materials are substantially different and hence Allen does not anticipate or make obvious the pending claims.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 3, 5, 11, 13, 46, and 48 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Allen in combination with U.S. Patent No. 4,350,793 to Schmidt et al. (Schmidt). Applicants respectfully traverse this rejection.

Allen has been discussed above. Schmidt has been cited for the disclosure of certain properties related to the components of the composition. Schmidt does not teach or disclose an expanded composition as instantly claimed and thus cannot rectify the deficiencies of Allen. Accordingly, Applicant believe that the rejection of Claims 3, 5, 11, 13, 46, and 48 under 35 U.S.C. § 103(a) should be withdrawn.

Claims 3, 5, 11, 13, 31, 33, 38, and 40 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Weber in combination with Schmidt. As mentioned above Schmidt is not directed to an expanded composition and hence does not rectify the deficiencies of Weber. Applicants request that the rejection be withdrawn.

08CN8851-6

Claims 14, 17, 19, 21-23, 25, and 27-29 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Weber in combination with Allen. Claims 18, 20, 24, and 26 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Weber in combination with Allen and Schmidt. Applicants are of the belief that none of the references, singly or in combination, teach the instantly claimed expanded material.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 50-1131.

Respectfully submitted,

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